## REMARKS

**Preliminarily, Applicants respectfully request the Examiner to acknowledge the claim for foreign priority under 35 U.S.C. § 119 to Japanese Patent Application No. 11-201058 filed July 15, 1999. Also, the Examiner is respectfully requested to acknowledge the claim for benefit to Provisional Application No. 60/148,265 filed August 11, 1999. This application is a CIP of PCT/JP00/04753 filed July 14, 2000 and a CIP of Application No. 09/636,638 filed August 11, 2000, now issued as U.S. Patent 6,600,646, and which claims benefit of Provisional Application No. 60/148,265 filed August 11, 1999.**

Claims 1-3 were rejected under 35 U.S.C. § 112, first paragraph. The Examiner considered that there is no support for a CV higher than an upper limit of 194,000 CV/g as exemplified by Example 11.

In response, claim 1 has been amended to recite an upper limit of 194,000 CV/g as suggested by the Examiner. Withdrawal of the foregoing rejection is respectfully requested.

Claims 1-3 were rejected under 35 U.S.C.§ 103(a) as being unpatentable over U.S. Patent 4,954,169 to Behrens in view of U.S. Patent 6,051,044 to Fife. The grounds for rejection remain the same as set forth in the previous Office Action.

Namely, Behrens was cited as disclosing fine-grained, high purity earth acid metal powders, including tantalum and niobium. The Examiner relied on Fife as disclosing addition of nitrogen in an amount of more than 500 ppm to about 4,000 ppm to reduce DC leakage in a niobium anode. The reason for rejection was that it would have been obvious to add nitrogen in the amount taught by Fife to a fine-grained high purity powder of Behrens, with the reasonable expectation of reducing DC leakage.

Applicant traverses, and respectfully requests the Examiner to reconsider for the following reasons.

The niobium powder of the present invention is characterized as having a high CV value as well as a small mean particle diameter.

The niobium powder of the present invention is prepared as follows. In a first process as specifically disclosed in Examples 1-3, potassium fluoroniobate is reduced and the thus-obtained reduced product is then pulverized using a ball mill to give a finely divided powder. In a second process as specifically disclosed in Examples 4-11, a niobium ingot is hydrogenated and then pulverized, and the pulverized product is again hydrogenated and further pulverized to give a finely divided powder. The step of pulverization into a finely divided powder in the two processes is important for obtaining a niobium powder having a large CV value.

In Behrens, a tantalum powder is made by reducing potassium heptafluorotantalate ($K_2TaF_7$), but, a step of pulverizing the reduced product into a finely divided powder is not adopted, as seen from the description of the examples.

In Fife, a niobium ingot is hydrided and the thus-obtained embrittled ingot is crushed into an angular powder. The angular powder is milled into a flaked niobium powder.

The tantalum powder as specifically disclosed in the examples of Behrens has a CV value in the range of 22.5 mC/g (=22,500 $\mu$FV/g) to 30.0 mC/g (=30,000 $\mu$FV/g) (see columns 7-8, Table 4). The CV value of the niobium powder specifically disclosed in the examples of Fife is not larger than 45,400 CV/g (the largest CV value is 45,400 CV/g in Table 2, sample in the third line). Fife teaches that the niobium powder has a CV value in the range of 30,000 to 61,000 CV/g (column 6, lines 64-67), but no example having a CV value exceeding 45,400 CV/g is

given. These CV values specifically disclosed in the examples of Fife and Behrens are substantially smaller than the CV value required by present claim 1.

The Examiner is respectfully requested to compare the tantalum powder of Example 1 of Behrens with the niobium powder of Example 10 of the present specification. Both the tantalum powder and the niobium powder have the same particle size (0.7 μm; see Behrens, column 6, Table 1, Example 1, and Present Invention, page 16, Table 1, Example 10). However, the CV value of the tantalum powder is 25,500 μFV/g (25.5 mC/g; Behrens, columns 7-8, Table 4, Example 1). In contrast, the CV value of the niobium powder is 118,000 μFV/g (590 μF x 2μa x 100) (present specification, page 16, Table 1, Example 10). That is, the niobium powder of the present invention has a CV value that is about 5 times that of the tantalum powder of Behrens.

Applicant now turns to the limitation of claim 1 which requires that the amount of each element M (selected from iron, nickel, cobalt, silicon, sodium, potassium and magnesium) is not more than 100 ppm by weight, as follows.

Although showing that it is important for the amount of cobalt and silicon not to exceed 100 ppm by weight in niobium powder in order to provide electrolytic capacitors having reduced leakage, the Examiner did not consider the Declaration under 37 C.F.R. § 1.132 of Kazumi Naito dated June 25, 2003 to be persuasive of patentability. This is because there was no showing that the Behrens rare earth acid metal powders contained either Si or Co in amounts exceeding those claimed in present claim 1.

Applicant responds as follows.

As for the content of impurities, the Examiner presumed that the rare earth metal powders produced by Behrens did not contain Si or Co in an amount exceeding 100 ppm by weight.

However, there is no way to ascertain the Si or Co content from the disclosure of Behrens. Under these circumstances, it is respectfully submitted that there is insufficient basis in fact and/or technical reasoning to reasonably support any determination that the rare earth metal powders produced by Behrens did not contain Si or Co in an amount exceeding 100 ppm by weight. See MPEP § 2112 -the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.

The niobium powder of the present invention having reduced amounts of impurities is obtained by thoroughly washing the powder with an alkali and a specific acid, or further, with aqueous hydrogen peroxide (page 6, line 5 from the bottom, to page 7, line 7 of the specification). However, it cannot be ascertained whether Behrens adopted a washing procedure to the extent that impurities are reduced to 100 ppm or lower.

In the Declaration under 37 C.F.R. § 1.132 dated June 25, 2003, Applicant demonstrated that a Si and Co impurity content of not more than 100 ppm by weight is critical for achieving the effects of the invention. As amended to delete "or the total amount of the element M is not more than 350 ppm by weight", the test data is now fully commensurate in scope with claim 1. As discussed above, one cannot ascertain the Si and Co content based on the disclosure of Behrens, and it is respectfully submitted that there is inadequate basis to reasonably support any determination that the powder of Behrens did meet the claimed impurity contents.

In summary, it is respectfully submitted that the claims as amended herein patentably define over Behrens and Fife in terms of both (i) CV value and (ii) impurity content, and that there is nothing in the prior art which either suggests the claimed niobium powder and/or teaches how to prepare a niobium powder as claimed.

For the above reasons, it is respectfully submitted that the present claims are patentable over Behrens in view of Fife, and withdrawal of the foregoing rejection under 35 U.S.C. § 103(a) is respectfully requested.

Withdrawal of all rejections and allowance of claims 1-3 is earnestly solicited.

In the event that the Examiner believes that it may be helpful to advance the prosecution of this application, the Examiner is invited to contact the undersigned at the local Washington, D.C. telephone number indicated below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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